

## **CLAIM AMENDMENTS:**

Based on Applicant's above response to the Restriction Requirement dated March 11, 2003, please amend the claims as shown below.

Claims 3-8, 11-15, 21-24, 32-37, 43-44 (withdrawn from consideration)

Claims 25-31 (cancelled)

1. (original) A slide system for microscopy comprising:
  - a slide base;
  - a cover slip; and
  - an adhesive layer on a surface of at least one of said slide base and said cover slip, said adhesive layer surrounding a portion of said surface such that when said slide base and cover slip are engaged with said adhesive layer to form an assembled slide, said adhesive layer and said cover slip enclose and define a sealed sample area.
2. (original) A slide system according to claim 1 wherein said adhesive layer is located on said slide base.
9. (original) A slide system according to claim 1 further comprising at least one test material applied to at least one of said slide base and cover slip such that said test material is within said sealed sample area.
10. (original) A slide system according to claim 9 including at least two test materials, at least one of said test materials being applied to said slide base and at least another of

said at least two test materials being applied to said cover slip such that, when said sealed sample area is formed, said test materials on said cover slip are proximal said test materials on said slide base.

16. (original) A slide system according to claim 1 wherein each of said slide base, said cover slip and said adhesive have a preselected thickness such that, when said assembled slide is formed it has a preselected overall thickness.

17. (original) A slide system according to claim 16 wherein said preselected thickness of each of said slide base, said cover slip and said adhesive are the same.

18. (original) A slide system according to claim 16 further comprising a recess in said surface, said adhesive being placed in said recess.

19. (original) A slide system according to claim 16 further comprising a spacer having first and second sides and a preselected thickness and wherein said spacer surrounds said portion of said surface and said first side engages said adhesive on said surface and said second side includes an adhesive to engage the other of said slide base and cover slip, said sealed sample area being formed by said slide base, spacer, each of said adhesives and said cover slip.

20. (original) A slide system according to claim 1 wherein said adhesive is releasible.

38. (original) A slide system according to claim 9 wherein said test material comprises a stain.

39. (original) A slide system according to claim 38 wherein said stain is biohazardous.

40. (original) A method of preparing a slide for microscopy, comprising the steps of:

(i) placing a sample material on a surface of one of a slide base and a cover slip within a sample area surrounded by an adhesive material on said surface;

(ii) locating the other of said cover slip and said slide base over said sample area to engage said adhesive material; and

(iii) pressing said slide cover and said slide base to form a sealed sample area.

41. (original) The method of claim 40 wherein step (iii) is performed with a preselected force.

42. (original) The method of claim 40 wherein step (iii) said pressing is performed until a pre-selected thickness of said prepared slide is obtained.

45. (newly added) A slide system for microscopy, comprising:

a slide base;

a cover slip;

an adhesive layer on a surface of at least one of said slide base

and said cover slip, said adhesive layer surrounding a portion of said surface such that

when said slide base and cover slip are engaged with said adhesive layer to form an assembled slide, said adhesive layer and said cover slip enclose and define a sealed sample area; and

wherein at least one of said slide base and said cover slip includes at least two electrical conductors extending between said sealed sample area and a surface on at least one of said slide base and said cover slip outside said sealed sample area.

46. (newly added) A slide system according to claim 45, wherein one of said at least two conductors is on said slide base and the other of said at least two conductors is on said cover slip.

47. (newly added) A slide system according to claim 45, further comprising an insulating coating on said conductors within said sealed sample area preventing any electrical contact with any sample.

48. (newly added) A slide system according to claim 1, wherein at least one of said conductors is sufficiently resistive to heat said sample area.

49. (newly added) A slide system according to claim 45, further comprising a dielectric coating on said conductors within said sealed sample area.

50. (newly added) A slide system according to claim 45, further comprising a biologically inert coating on said conductors within said sealed sample area.

51. (newly added) A slide system according to claim 45, further comprising a chemically inert coating on said conductors within said sealed sample area.

52. (newly added) A slide system for microscopy, comprising:

a slide base;

a cover slip;

an adhesive layer on a surface of at least one of said slide base and said cover slip, said adhesive layer surrounding a portion of said surface such that when said slide base and cover slip are engaged with said adhesive layer to form an assembled slide, said adhesive layer and said cover slip enclose and define a sealed sample area;

wherein at least one of said slide base and said cover slip includes an electrical conductor in said sealed sample area and having at least two portions of said conductor extending outside of said sealed sample area.

53. (newly added) A slide system according to claim 52, further comprising an insulating coating on said conductor within said sealed sample area preventing any electrical contact with any sample.

54. (newly added) A slide system according to claim 52, wherein said conductor is sufficiently resistive to heat said sample area.

55. (newly added) A slide system according to claim 52, further comprising a dielectric coating on said conductor within said sealed sample area.

56. (newly added) A slide system according to claim 52, further comprising a biologically inert coating on said conductor within said sealed sample area.

57. (newly added) A slide system according to claim 56, further comprising a chemically inert coating on said conductor within said sealed sample area.

58. (newly added) Apparatus for use with a microscope, comprising:  
a slide base having a sample area defined by a surrounding barrier;  
at least one electrical conductor, integrated with the slide base,  
which traverses through or under the sample area and has at least two electrical contacts located outside of the sample area.

59. (newly added) Apparatus according to claim 58, wherein the at least one electrical conductor is disposed underneath the barrier.

60. (newly added) Apparatus according to claim 59, wherein at least one aspect of the surrounding barrier is an adhesive and including a cover slip sized for mounting over the barrier to cover and seal the sample area.

61. (newly added) Apparatus according to claim 58, further comprising an insulating coating over the at least one conductor within the sample area preventing any electrical contact with any sample.

62. (newly added) Apparatus according to claim 58, wherein the at least one conductor is sufficiently resistive to heat the sample area.

63. (newly added) Apparatus according to claim 58, further comprising a dielectric coating on the at least one conductor within the sample area.

64. (newly added) Apparatus according to claim 58, further comprising a biologically inert coating on the at least one conductor within the sample area.

65. Apparatus according to claim 58, further comprising a chemically inert coating on the at least one conductor within the sample area.

66. (newly added) Apparatus for use with a microscope, comprising:  
a slide base;  
a cover slip;

a barrier formed on a surface of at least one of the slide base and the cover slip, the barrier surrounding a portion of the surface such that when the slide base and cover slip are engaged with the barrier to form an assembled slide, the barrier defines a sample area;

at least one electrical conductor, integrated with the slide base or the cover slip, which traverses through or under the sample area and has at least two electrical contacts located outside of the sample area.

67. (newly added) Apparatus according to claim 66, wherein the barrier is an adhesive layer.

68. (newly added) Apparatus for use with a microscope, comprising:

a slide base having a sample area defined by a surrounding barrier;

an electrical conductor disposed under the sample area; and

an electric circuit component disposed underneath the sample area

and connected to the electrical conductor.

69. (newly added) Apparatus according to claim 68, wherein the electric circuit component is an acoustic transducer in acoustic contact with the sample area.

70. (newly added) Apparatus according to claim 68, wherein the electric circuit component is a piezoelectric transducer in acoustic contact with the sample area.

71. (newly added) Apparatus according to claim 68, wherein the electric circuit component is a light source.

72. (newly added) Apparatus according to claim 71, wherein the light source is a light emitting diode.

73. (newly added) Apparatus according to claim 72, wherein the light source is a semiconductor laser.